|  |                |                 |           |          |           |               |          |          |          |   |  | 1         | 10/662,127         |                |              |             |           |             |             |           |           | LANG ET AL. |          |            |          |           |           |          |          |          |           |          |           |   |  |  |  |
|--|----------------|-----------------|-----------|----------|-----------|---------------|----------|----------|----------|---|--|-----------|--------------------|----------------|--------------|-------------|-----------|-------------|-------------|-----------|-----------|-------------|----------|------------|----------|-----------|-----------|----------|----------|----------|-----------|----------|-----------|---|--|--|--|
| Claim  |                |                 |           |          |           |               |          |          |          |   | E  | Examiner  |                    |                |              |             |           |             |             |           | Art Unit  |             |          |            |          |           |           |          |          |          |           |          |           |   |  |  |  |
| 1 100 101 1001 00110 01110 01110 01110 11100 1100 1100 1100 1100 |                |                 |           |          |           |               |          |          |          |   |  | ŀ         | Thomas J. Williams |                |              |             |           |             |             |           |           |             | 3683     |            |          |           |           |          |          |          |           |          |           | _ |  |  |  |
| (Through numera  |                |                 |           |          |           |               |          |          |          |   | 1  | <u></u>   |                    |                |              |             |           |             | <del></del> |           |           | <del></del> |          |            |          |           |           | 1        |          |          |           |          |           |   |  |  |  |
|  | √ Rejected     |                 |           |          | L         | Cancelled     |          |          |          |   |  |           |                    |                | N            | Non-Elected |           |             |             | A         | Appeal    |             |          |            |          |           |           |          |          |          |           |          |           |   |  |  |  |
|  | = Allowed      |                 |           |          |           | + Restricted  |          |          |          |   |  |           |                    | ı              | Interference |             |           |             |             |           | 0         | Objected    |          |            |          |           |           |          |          |          |           |          |           |   |  |  |  |
| Claim  | Claim [        |                 |           | Dat      | е<br>е    |               |          |          | Claim    |   |  | Da        |                    |                | e            |             | (         |             |             | Cli       | alm       |             | Date     |            |          |           |           |          |          | •        |           |          |           |   |  |  |  |
| _ <u>_</u> _   | 96             | В               |           |          |           | Π             |          | Τ        | T        | 1 |  | ā         | Τ                  |                |              | Γ           |           |             |             |           |           |             |          |            | П        |           |           |          |          |          |           |          |           |   |  |  |  |
| Fina   | 9/14/0         | 1/00/           |           |          |           |               |          |          |          |   | Finz   | Original  |                    |                | l            |             | ٠.        |             |             |           |           |             | Final    | Original   |          |           |           |          |          |          |           |          |           |   |  |  |  |
|  |                |                 |           |          |           |               |          |          |          | 1 |  | 51        |                    | L              | 上            |             |           |             |             |           |           |             |          | 101        |          | ╛         | ╛         |          |          |          |           |          |           |   |  |  |  |
| P 2  | -              | -               | 4         | ┵        |           | ┞             | -        | ├-       | ┝        | - | -  | 52<br>53  | ╀                  | ╄              | ╀            | ┝           | _         | Н           |             |           | Ц         |             |          | 102<br>103 | $\vdash$ | 4         |           |          | _        | _        | -         | L        |           |   |  |  |  |
|  | -              | +               | ┪         | +        | _         | H             | +        | +        | ┝        | ┨ | $\vdash$   | 54        | +                  | ╁╴             | ╁            | -           | $\vdash$  | Н           | -           | -         | Н         |             |          | 103        | $\vdash$ | $\dashv$  | ╛         | $\dashv$ | $\dashv$ | _        | $\vdash$  | ┝        | $\vdash$  |   |  |  |  |
| 5  |                |                 | $\Box$    | $\Box$   |           |               |          |          |          | 1 |  | 55        | I                  |                |              |             |           |             |             |           |           |             |          | 105        |          |           |           |          |          |          |           |          |           | i |  |  |  |
|  | -              | -               | -         | -        | _         |               | H        | ╀        | ╀        | - | -  | 56<br>57  | ╀                  | ╀              | ┡            | ┡           | -         | Н           | _           |           | $\dashv$  |             |          | 106        | $\vdash$ | _         | _         |          | _        | _        | L         |          |           | i |  |  |  |
|  | $\dashv$       | $\dashv$        | 7         | $\dashv$ |           | <del> -</del> | H        | 十        | H        | 1 | $\vdash$   | 58        | ╁                  | $\vdash$       | H            | -           | $\vdash$  | Н           | -           | Н         | Н         |             |          | 107<br>108 | $\dashv$ | ᅱ         | -         | $\dashv$ | $\dashv$ | _        | $\vdash$  | $\vdash$ | Н         | 1 |  |  |  |
|  |                | 工               | $\Box$    |          | _         |               |          |          |          | 1 |  | 59        |                    |                |              |             |           |             |             |           |           |             |          | 109        |          |           |           |          |          |          |           |          |           | ı |  |  |  |
| <del></del>  | $\dashv$       |                 | -         | $\dashv$ |           | ⊢             | ┝        | ┞        | ╀        | ┨ |  | 60<br>61  | ╀╌                 | ╀              | ╀            | ┝           | Н         | Н           | _           | _         |           |             |          | 110        |          | _         | 4         | $\dashv$ |          |          |           |          | Ц         | ı |  |  |  |
| _ <del></del>  | $\dashv$       | $\dashv$        | +         | 7        |           | $\vdash$      | ┢        | ┢        | H        | ľ | -  | 62        | ╁                  | +              | $\vdash$     | H           | Н         | Н           |             |           | $\dashv$  |             |          | 111        | $\dashv$ | ᅥ         | $\dashv$  | $\dashv$ | $\dashv$ | _        | -         | H        | Н         |   |  |  |  |
|  | $\Box$         | $\Box$          | $\Box$    | $\Box$   | _         |               |          |          |          | 1 |  | 63        |                    |                |              |             |           |             |             |           | $\square$ | ļ           |          | 113        |          | $\Box$    |           |          |          |          |           |          |           |   |  |  |  |
|  | -              | +               | +         | $\dashv$ |           | H             | ⊢        | ╀        | ┝        | 1 | -  | 64<br>65  | ╀                  | ╀              | ⊢            | -           | Н         | Н           |             | $\dashv$  | Щ         |             |          | 114        | -        | 4         | 4         | 4        |          |          | L         | L        | Ш         |   |  |  |  |
|  | ᅥ              | +               | 7         | 1        | _         | Н             | H        | +        | $\vdash$ | 1 | _  | 66        | ╁                  | $\vdash$       | H            | -           | Н         | Н           |             |           | $\dashv$  | ł           |          | 116        | $\dashv$ | ┪         | $\dashv$  | $\dashv$ | ᅱ        |          | H         |          | H         |   |  |  |  |
|  | $\Box$         | $\Box$          |           | $\Box$   |           |               |          |          |          | ] |  | 67        |                    |                |              |             |           |             |             |           |           |             |          | 117        |          |           | 丁         |          |          |          |           |          |           |   |  |  |  |
| 18   | $\dashv$       | +               | 4         | 4        | _         | _             | L        | <b> </b> | ┡        | ┨ | <u> </u>   | 68        | ╀                  | 1              | L            | L           | Ц         |             | _           | _         |           |             |          | 118        |          | 4         | $\Box$    | $\Box$   | $\Box$   |          |           |          |           |   |  |  |  |
|  | ᅱ              | <u>-</u>        | +         | -        |           | ┝             | ┝        | ┝        | ┝        | 1 |  | 69<br>70  | ╁                  | ┢              | ├            |             | Н         | Н           | -           | -         |           | ł           |          | 119        | $\dashv$ | ┪         | +         | +        | -        |          | -         |          | $\vdash$  |   |  |  |  |
| 21   | V              |                 | 1         |          |           |               |          |          |          | 1 |  | 71        |                    |                |              |             |           |             |             | $\exists$ |           | ł           |          | 121        | +        | 7         | $\dashv$  | ┪        | 7        |          | Н         |          | $\vdash$  |   |  |  |  |
|  |                | 4               | _         | _        |           | L             |          |          | L        | ] |  | 72        | L                  | L              | $\Box$       |             |           |             |             |           | $\Box$    |             |          | 122        |          | $\Box$    | 1         | $\Box$   | $\Box$   |          |           |          | $\square$ |   |  |  |  |
|  |                | $\dashv$        | +         | -        |           | _             | -        | -        | -        | ┨ | -  | 73<br>74  | ╁                  | ┝              | -            | H           | $\dashv$  | -           | $\dashv$    | $\dashv$  |           | }           |          | 123<br>124 | $\dashv$ | $\dashv$  | +         | +        | $\dashv$ | _        |           | _        | $\dashv$  |   |  |  |  |
|  | =              |                 | 1         |          |           |               |          | -        | -        | 1 | <u> </u>   | 75        | H                  | 1-             | -            | Н           | ٦         | $\dashv$    | 7           | 7         | ᅱ         | ŀ           |          | 125        | ┪        | ┪         | ╅         | ┪        | ┪        | _        | Н         |          | $\dashv$  |   |  |  |  |
|  |                |                 | 7         | $\Box$   |           |               |          |          |          |   |  | 76        |                    |                |              |             |           | $\Box$      | $\Box$      | $\Box$    | コ         | [           |          | 126        | 二        |           |           | コ        |          |          |           |          |           |   |  |  |  |
|  |                |                 | +         | +        | 4         | _             |          | ⊢        | -        | 1 | <u> </u>   | 77<br>78  | -                  | <del> </del> — | _            | L           | $\dashv$  |             | -           | -         | 4         | ŀ           |          | 127        | -+       | 4         | 4         | 4        | 4        | _        |           | _        | $\Box$    |   |  |  |  |
|  |                |                 | +         | 7        | -         |               | $\vdash$ | $\vdash$ | $\vdash$ | l | -  | 79        | -                  | ┢              | $\vdash$     | Н           | $\dashv$  |             | $\dashv$    | +         | $\dashv$  | ŀ           |          | 128<br>129 | -+       | ┪         | +         | ┪        | $\dashv$ | _        | -         | -        | $\dashv$  |   |  |  |  |
| 30   | =              | =               | 1         | $\Box$   |           |               |          |          |          | 1 |  | 80        |                    |                |              |             |           |             |             |           |           | į           |          | 130        |          |           | $\exists$ |          |          |          |           |          |           |   |  |  |  |
| 31   | <del>-</del> ; | =               | +         | +        | $\dashv$  | _             | _        | L        | L        | - | -  | 81        | -                  | ├-             | _            | L           |           | _           | 4           | -         | 4         | ļ           | $\dashv$ | 131        | _        | 4         | 4         | $\Box$   | $\Box$   |          |           |          |           |   |  |  |  |
|  |                |                 | $\dagger$ | $\dashv$ | +         | -             | -        | $\vdash$ | ┢        | ł | -  | 82<br>83  | $\vdash$           | -              | $\vdash$     | Н           |           | $\dashv$    | ┥           | ┥         | $\dashv$  | - }         | $\dashv$ | 132<br>133 | $\dashv$ | +         | +         | +        | +        |          | $\vdash$  | -        | $\dashv$  |   |  |  |  |
| 34   | 0              |                 | 1         |          |           |               |          |          |          | 1 |  | 84        |                    |                |              |             | ╛         | ╛           |             | ╛         |           | ŀ           |          | 134        | $\dashv$ | _         | 1         | _        | _        |          | $\exists$ | $\dashv$ | $\dashv$  |   |  |  |  |
|  |                | $\perp$         | 4         | 1        | 4         |               |          | $\Box$   | L        | 1 |  | 85        | F                  |                | П            |             | $\exists$ | $\sqsupset$ | $\supset$   | $\supset$ |           | Ţ           |          | 135        | $\Box$   | $\supset$ | 1         | $\Box$   | $\Box$   |          |           |          |           |   |  |  |  |
|  |                | =               | +         | +        | -         | $\dashv$      | $\vdash$ | Н        | <u> </u> | 1 | -  | 86<br>87  | $\vdash$           |                | Н            | Н           | ┥         | -           | $\dashv$    | $\dashv$  | $\dashv$  | ŀ           |          | 136<br>137 | $\dashv$ | +         | +         | +        | +        |          |           |          | $\dashv$  |   |  |  |  |
| 38   | =              | =               | t         | _        | _         |               |          |          |          |   |  | 88        | T                  |                | H            | $\vdash$    | _         |             | $\dashv$    | $\dashv$  | ㅓ         | ŀ           |          | 138        | $\dashv$ | +         | +         | $\dashv$ | $\dashv$ | $\dashv$ | $\vdash$  | $\dashv$ | $\dashv$  |   |  |  |  |
| 39   | =              | =               | Ţ         | $\Box$   | $\Box$    |               |          |          |          |   |  | 89        |                    |                |              |             | コ         |             | $\sqsupset$ |           |           | Ĺ           |          | 139        |          | 士         | $\perp$   |          | □        |          |           |          |           |   |  |  |  |
| 40   | ᅴ              | <del>5</del>  - | +         | +        | 4         |               |          | H        | -        | ł | -  | 90<br>91  | _                  | L              | Щ            |             |           | 4           | 4           | 4         | 4         | ŀ           |          | 140        | 1        | 4         | 4         | 4        | 4        | $\neg$   | $\Box$    | 4        | _]        |   |  |  |  |
| 41   | ~              | +               | +         | +        | ┥         | $\dashv$      |          | H        | $\vdash$ |   | <u> </u>   | 92        | $\vdash$           | Н              | Н            | $\dashv$    | $\dashv$  | $\dashv$    | +           | $\dashv$  | $\dashv$  | }           |          | 141<br>142 | +        | +         | +         | +        | $\dashv$ | $\dashv$ | $\vdash$  | -        | $\dashv$  |   |  |  |  |
| 43   | $\Box$         | 工               | 1         | ユ        |           |               |          |          |          | 1 |  | 93        |                    |                |              |             | ╛         |             | ゴ           | 士         |           | t           |          | 143        | 士        | 士         | 士         | 士        | ╛        | ╛        | ╛         | _        | $\dashv$  |   |  |  |  |
| 44   | +              |                 | +         | +        | _         | 4             |          | Щ        |          | ı | ļ  | 94        | <u> </u>           | Н              | $\Box$       | $\sqcup$    | $\dashv$  | -[          | 4           | 4         | 4         | ſ           | $\Box$   | 144        | $\bot$   | $\bot$    | $\bot$    | 7        | $\dashv$ | 耳        | 4         | $\Box$   | $\Box$    |   |  |  |  |
| 45   | +              | +-              | +         | +        | +         | $\dashv$      |          | Н        | Н        |   | <del>                                     </del> | 95<br>96  | -                  | Н              | $\dashv$     | $\dashv$    | $\dashv$  | +           | +           | $\dashv$  | $\dashv$  | }           |          | 145<br>146 | +        | +         | +         | +        | +        |          |           | -        | 4         |   |  |  |  |
| 47   | I              | 上               | I         | 丁        | _         | コ             |          |          |          |   |  | 97        |                    |                |              |             | 1         | 寸           | _           | _         | $\exists$ | ŀ           |          | 147        | +        | 十         | +         | +        | +        | ┪        | +         | $\dashv$ | ᅱ         |   |  |  |  |
| 48   | 4              | $\perp$         | Ţ         | 7        | $\exists$ | $\Box$        |          |          | $\Box$   |   |  | 98        |                    |                |              | $\Box$      | $\exists$ | $\Box$      | $\Box$      | $\Box$    |           |             |          | 148        | 工        | I         | I         | I        |          |          |           | コ        | J         |   |  |  |  |
| 50   | +              | +               | +         | +        | 4         | 4             |          | $\dashv$ | $\dashv$ |   | $\vdash \vdash$                                  | 99<br>100 | -                  | Н              |              | $\dashv$    | -         | 4           | 4           | +         | 4         | -           | $\dashv$ | 149        | $\bot$   | Ţ         | 4         | 4        | 4        | 4        | 4         | J        | $\exists$ |   |  |  |  |
|  | _              |                 |           |          |           |               |          |          |          |   | L  | 1,00      | Щ.                 | لـــا          |              |             |           |             |             |           |           | L           |          | 150        |          | ┸         | Ŀ         | $\perp$  |          |          | _1        | _1       | ٢         |   |  |  |  |

Application/Control No.

Index of Claims

Applicant(s)/Patent under Reexamination